

## SUMMARY

The invention discloses an optical amplifier (18) that amplifies signal light in a signal band in a fiber optic transmission system (10) having at least first and second optically pumped signal light gain amplifying stages (30), a tilt controller (40) linked to a control unit ,  
a optical monitor (34) analyzing signal powers,  
characterized in that the amplified spontaneous emission of the optical amplifier (18) is measured at two extreme wavelengths of the signal band to derive control signals (44) for at least the tilt controller (40).